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IN THE

United States Court of Appeals

FOR THE THIRD CIRCUIT

No. 12-145 OCTOBER TERM, 1957

CIVIL ACTION No. 285-51

RICHARD A. FISCH and ANCHOR PLASTICS CO., INC.,
Plaintiffs-Appellants,

v.

WILLIAM GOULD, doing business as Stay-Rite Supply Co., and KEYSTONE PLASTICS INC.,
Defendants-Appellees.

ON APPEAL FROM JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

APPENDIX TO BRIEF FOR DEFENDANTS-APPELLEES

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Excerpts From Testimony.

(204) PETER H. SECKEL, called and sworn for the plaintiff, testified as follows:

* * *

(239) Cross by Mr. Churchill:

Q. What other plastics did you have experience with extruding prior to entering the employ of Anchor Plastics Company? A. I think that just about covers it. I have, of course, handled others, but not extruded them.

Q. So your experience was limited to cellulose acetate at Stadium Limited in London, and some vinyl compounds at Stadium Limited, is that correct? A. As far as extrusion is concerned, yes.

Q. And when you entered the employ of Anchor Plastics Company you were given certain problems on which to work, is that correct? A. Yes.

* * *

(246) By Mr. Churchill:

Q. You had not tried, as I understand your testimony—if I am wrong, please correct me—you had not tried any other two plastics before you mixed cellulose acetate and cellulose acetate butyrate, is that correct? A. I believe that was the first experiment. Others were tried about the same time.

Q. So that when you departed from trying to combine physically nylon and tape in January, 1949, you then took cellulose acetate, cellulose acetate butyrate, two materials found in your place, ran them through an extruder, and found that they produced a strip having longitudinal fibers, is that correct? (247) A. Substantially, yes. The material was dried, of course, before it was extruded.

The Court: Just a minute. The material was dried?

The Witness: Yes.

Q. Well, then in drying the material you were just following the conventional practice of drying the material before it is extruded in any operation, isn't that correct? A. Yes.

Q. And you had no reason to suspect when you combined these two and mixed them together that you would get longitudinal fibers?

The Court: I think he answered that several times already. No—isn't that right?

The Witness: No.

Q. Do you have any records, documents, or other papers setting forth the experiments which you conducted, the dates when those experiments were conducted, and what you found in conducting those experiments? A. I am afraid I do not.

Q. You kept no such records? A. That's right.

Q. Do you have any records prepared in 1949 which show any of your work on the subject matter of the patent in suit? A. Well, I think I stated before that there must have been (248) records addressed to Mr. Rothman requesting time on an extruder to continue these experiments on a large scale. I have looked for them, at your request, and I have not found them.

Q. So that you have no records which are available today showing any work which you did— A. I am sorry to say no.

Q. —in developing the patent in suit? A. No.

Q. You are relying upon recollection in giving your testimony? A. Yes.

* * *

Peter H. Seckel—For Plaintiff—Cross.

(252) Q. Did you talk to Mr. Greene, or someone in his office, to communicate your invention to him, or did you communicate it to him in writing? A. I went to see him.

Q. And you communicated it to him orally? A. Yes, either to him or to the other partner in his office.

Q. You don't remember which one now? A. I believe it was Mr. Durr in Mr. Greene's office.

Q. Did you mention to Mr. Durr that one of the big advantages of this strip, made according to this example, is that it can be sewn across? A. I might have.

Q. You don't remember? A. No, I do not.

(253) Q. Wasn't that your prime purpose at the time, to produce such a strip? A. No, we were looking for other improvements, also, such as the breaking off, which is certainly equally important.

Q. Did you mention to Mr. Durr that this strip would not break off into a ragged edge and hence when used in a foundation garment would not give rise to any sharp projections which would irritate the body of the wearer? A. I probably told him at least part of that, yes.

Q. Did you mention to—

The Court: Just a minute. I ought to caution this witness—you know, "probably" and "maybe" don't help very much. It may be snowing out, but it isn't. If you can give definite answers, you better give them. If you don't remember, that's another thing.

The Witness: Well, it was a long time ago, your Honor, and there is nothing in writing.

The Court: You have no notes at all in connection with this that you made at the time?

The Witness: Not at that time.

The Court: I ought to mention that it is rather unusual, because in patent cases these inventors

come in with brief cases full of notes and experiments they made, and the dates they made them. Of course, you are a very young man, I realize that.

(254) Mr. Churchill: Well, he was employed by the plaintiff company, which had been in business before he entered it.

The Court: It is rather unusual that the inventor doesn't have a lot. They usually have copious notes, and drawings, and keep practically what you would call a log, like on a ship, most of them do.

Mr. Churchill: Well, research work is usually done in that fashion.

The Court: The reason I tell you that, you see, when you give evidence in which you say "maybe" and "probably", that doesn't help the Court very much to establish facts.

The Witness: Well, it might be, your Honor, a habit of mine not to keep copious notes and not to make these things more complicated than they have to be. I have found that many of my fellow scientists tend to overdo this record keeping. They spend more time on it than anything else.

The Court: That's possible, too. Go ahead, Mr. Churchill.

By Mr. Churchill:

Q. Did you mention to Mr. Durr that one of the advantages of this boning strip was that it could be immersed in water and would not become floppy? A. No.

Q. Have you read your patent over recently? (255) A. No, I haven't.

Mr. Churchill: Well, I should like to ask this witness to point out where in this patent anything

appears as to the advantages of this strip as a boning material other than the one reference, which has already been read in the record, which appears in column 2 at line 15.

The Court: Do you know whether it is mentioned anywhere else in the patent, Mr. Seckel?

The Witness: There is additional description—

The Court: I will tell you what we better do. I have been through this fumbling around before. This is rather unusual for a patentee not to have carefully read and studied his patent before he came to court. I am sure that Mr. Greene must have informed you that you have got to be fully conscious of whatever is in your patent. Now if we are going to start that fumbling around we are going to lose an awful lot of time.

(Discussion off the record.)

The Court: So I will give you ten minutes to go over it with him. There are side rooms here where you can sit down and go over it.

(Short recess.)

The Court: Are you generally acquainted with the contents of your patent now?

The Witness: Yes, your Honor.

(256) The Court: I should like to move along a little faster. We are going a little too slow.

By Mr. Churchill:

Q. Having read over your patent, Mr. Seckel, will you now state whether you find anywhere in the specification of your patent any reference which says that this material produced according to the example given may be sewn across? A. There is no reference to it.

Q. Is there any reference which says that it will provide a boning strip which may be immersed in water and will retain its rigidity? A. No.

Q. Is there any reference which says that when bent or broken it will not provide a sharp edge when used as boning material? A. No.

Q. Those were the considerations with which you were concerned in trying to provide a boning material, were they not? A. Yes. We hoped, of course, that this discovery would lead to other things, also.

Q. But your prime problem was to find a suitable boning material which had these characteristics, is that correct? A. Yes.

(257) Q. And you made no disclosure in your patent application that the material which you had found had the characteristics which you were looking for? A. We made some disclosure here that it wouldn't break, and that it would separate into fibers, which was important, also.

Q. But you made no reference or disclosure whatever to the fact that it could be sewn across? A. No.

Q. And that the needle would not break when it came in contact with it? A. No.

* * *

(259) Q. So that you were familiar before you admixed cellulose acetate butyrate and cellulose acetate that when you admixed the two, if they were incompatible, they would retain their separate entities? A. No.

Q. Well, you knew it with respect to other incompatible plastics, you say? A. No, that isn't quite true. You can mix other plastics which are normally considered incompatible and they will blend perfectly, one within the other.

Q. Well, if they are incompatible they do not blend into a unitary structure, do they? A. No.

Peter H. Seckel—For Plaintiff—Cross.

Q. The very word itself, incompatible, means that they will not blend into a unitary structure, doesn't it? (260) A. Yes.

Q. So then you did know that when you admixed two incompatible plastics, each would retain its separate identity, is that correct? A. No, you cannot infer that because since then we assumed that other plastics would not blend completely, we assumed that they were incompatible, and we found that they blend completely.

> The Court: Then they would not be incompatible.
>
> The Witness: We have then found that they are not incompatible, but most people assume that they are incompatible.

Q. Well, did you, in 1949, January, know that cellulose acetate and cellulose acetate butyrate were incompatible? A. Yes.

Q. And they are still incompatible? A. Yes.

Q. So that when you admixed cellulose acetate and cellulose acetate butyrate, and knowing they were incompatible, you knew they would retain their separate identities? A. No, I did not know that. I found it. I thought they might have been assumed incompatible and that they might blend.

Q. You knew they were incompatible and you found out they were still incompatible; is that your answer? A. Yes.

Q. So when you discovered they were incompatible still and retained their separate identities, they extruded out (261) longitudinally in separate phases in the strip, is that correct? A. Yes.

• • •

John M. DeBell—For Plaintiff—Cross.

(287) JOHN M. DEBELL, called and sworn for the plaintiff, testified as follows:

* * *

(323) Cross Examination:

Q. To produce a strip made of longitudinal fibers which could be separated one from the other. A. Oh, I would think so. In retrospect I would say definitely.

Q. In foresight, you say perhaps. A. I think in foresight, I would try it and see.

Q. That would be a good place to start— A. Surely.

Q. —if that is what you were looking for. A. I would be very happy—yes, I think so.

The Court: I don't think you should pursue that any longer, because he is not going to change.

Mr. Churchill: No.

The Court: That is quite definite.

* * * *

(327) Q. In the preparation of a sheet such as is illustrated in the Goessling patent, when that sheet is formed, is there a sprue which is attached at the end of that sheet? (328) A. In this drawing, Figure 4, there is.

Q. What is the purpose of a sprue? A. The sprue permits the material to flow from the barrel of the extruder into the piece.

Q. And when the product has been molded, why, that sprue forms part of the finished mass, does it not? A. Well, the sprue usually sticks out and is knifed off.

Q. It is cut off but it forms part of the finished product. A. The part of it that is within the confines of the desired geometrical design forms part of the product, the rest is cut off and discarded.

Q. That sprue is usually of small dimension, isn't it?

A. Well, it may be anything from—anything up to half an inch.

Q. And how small, normally? A. Down to a sixty-fourth.

Q. Did you ever remove such sprues? A. Yes.

Q. Did you ever remove such a sprue which was part of a pearlescent material such as shown here in the Goessling patent? A. Not to my recollection.

Q. Did you ever remove such a sprue from any sheet which was composed of two incompatible polymers or plastics? (329) A. No.

Q. Then you never had the opportunity to observe whether or not that sprue had longitudinal fiber formation? A. While I have not observed that particularly, I am sure there is longitudinal formation in the sprue, and a different pattern at the point where you cut off from where you have the sidewise flow of the plastics.

Q. So that in the sprue which is formed by two incompatible plastics, through this small orifice, you would get—the sprue would be formed of longitudinal fibers formed by the two separate phases of the two plastics involved? A. I think you would have a longitudinal orientation which might or might not be fibrous, depending primarily on how hot it was.

Q. But you would get a longitudinal orientation? A. I think so.

Q. Somewhat similar to the strip material which is here produced, is that correct? A. It would be flow orientation, which would be similar to this. It would probably under those conditions not be fibrous orientation in the sense that it could be picked apart. There again, if you chilled the passage enough and could and still fill the piece, you might be able to pick it apart afterward.

Q. Any man who was accustomed to doing this type of (330) molding, and removing these sprues from pearlescent or other materials composed of two incompatible plastics

would have had sufficient experience then, would he not, to notice that in the sprue, with these two incompatible plastics, he obtained longitudinal fibers? A. I would expect that he would have noticed longitudinal orientation and probably not fibers.

Q. But possibly fibers. A. Conceivably fibers.

• • •

(373) R. Leonard Hasche, called and sworn for the defendant, testified as follows:

• • •

(384) Direct Examination by Mr. Churchill:

Q. In your work at Tennessee Eastman Corporation did you ever admix cellulose acetate, or Tenite 1, and cellulose acetate butyrate, or Tenite 2? A. Well, we did, we did in purging a machine. That's the main occasions when we did, or by accident.

Q. Would you describe how you mixed the two in purging a machine, please? A. After we had been making, say, test samples of acetate, cellulose acetate, or making some products, such as a rod, we would keep the machine in operating condition, the same temperature, and everything, and just put in the hopper a new product, such as acetate butyrate, and then run the machine till that was purged out, the original material. So in the interim we had all compositions of the two materials exuded from the machine.

Q. What would be the proportions in the compositions—relative compositions of cellulose acetate with respect to butyrate as the purging took place? A. Well, it went through all compositions from a hundred per cent of one to a hundred per cent of the other.

Q. So it started at a hundred— A. A hundred acetate and ended up with a hundred per cent acetate butyrate.

Q. And so in between you would have percentages vary-
(385) ing from, say, 95 per cent of one and five per cent of the other to, perhaps, five per cent of one and 95 per cent of the other. A. Yes, we went through that range.

Q. Have you read the patent in suit? A. Yes, I have.

Q. Do you recall from the patent in suit what range Mr. Seckel suggests as suitable for making the strip here in question? A. Well, some place it said 60-40, and 40-60. On column 2, first page, lines 8 and 9, he said, "The best mixture so far found is 40-60 per cent of cellulose acetate with 60-40 per cent of cellulose acetate butyrate."

Q. What was just ahead of that? A. Ahead of that he said, "The proportions of the incompatible materials are not very critical, the proportion of either one can vary from about 5 to 95 or more, of the mixture."

Q. Now, in doing this purging that you have described, where you ran butyrate following after acetate, what was the nature of the strip which resulted from the purging? A. It depends a great deal on the die we had in the press. If we had a small rod, it had this same fibrous structure of filaments, of small filaments that could, by bending
(386) or flexing—would show up as individual fibers.

Q. When did you first observe that phenomenon? A. I observed it very early. I always observed everything that—

Q. What was the first time that you observed the fibrous structure being formed by extruding cellulose acetate and cellulose acetate butyrate? A. Well, it was in the late 30s, I think around '39.

Q. And you observed that at Tennessee Eastman Corporation? A. Yes. At that time we were working with plasticizers for acetate butyrate.

Q. How many extruders did Tennessee Eastman Corporation have? A. Well, I don't know it exactly. They had two, as I recall, for molding samples and making rods—

and experimental rods—and tubes. They had one big extruder making sheet for safety glass, and another experimental one. In the laboratory we had one machine.

Q. Was that an extruder? A. That's right.

Q. And did you have dies for changing the shape of the material produced on that extruder? A. Yes.

Q. Did you ever extrude strips? (387) A. Yes.

Q. Did you ever admix any other plastics besides Tenite 1 and Tenite 2? A. We did unintentionally—in one case we were making a co-polymer of dimethyl fumarate with isopropenyl acetate. That combination is peculiar in the fact that dimethyl fumarate is very difficult to polymerize by itself, and isopropenyl acetate polymerizes to rather soft material. But when you polymerize them together they go with comparatively high speed, and you get a block of what appears to be very homogeneous material. But when we granulated that material and dried it and put it through the extrusion machine we had an identical product—type of product, as far as you could see, to this as disclosed in the Seekel patent. When put through an extruder, and when subject to positive molding, to make plates for tests, it formed a laminated appearance, looked very much like mica. These layers could be peeled apart and the layers were rather uniform in thickness.

Q. It formed laminations? A. That's right. And we proved that this polymer—to our satisfaction, that this so-called co-polymer was not a co-polymer, but the two catalyzed each other, and they polymerized into what looked to be a homogeneous phase, (388) but was not when we finally put it through a die.

Q. They were two separate phases? A. Yes.

• • •

(389) Q. Are you familiar with the practice of using scrap materials over again? A. Yes.

Q. Is that called "regrind"? A. Yes.

•

Q. How does that come about, what is the reason for doing so, and why do you do it? A. I don't know what you mean by your question. We had two types of products. We had scrap returned often from molders and that material was often put on rolls, and colored black, and sent to Eastman Kodak to mold camera bodies out of. We also had regrind material that was contaminated to be reground and put back through the machine to purge.

Q. Well, is it common practice in the plastic molding art to take rejected products and grind them up again and reuse that plastic material? A. Yes.

• • •

(390) Q. Do you know of any instances while you worked at Tennessee Eastman Corporation where the end product desired by the customer was a fibrous material? A. I believe not.

(391) Q. In most instances the customer wanted a homogeneous material, is that correct? A. That's right.

• • •

(392) MORTON SCHLUSSEL, called and sworn for the defendant, testified as follows:

• • • • •

(394) Direct Examination by Mr. Churchill:

Q. Have you ever produced strip from Tenite 1 or Tenite 2? A. Yes.

Q. Have you ever produced strip for use in collar stays or brassiere stays? A. We have.

Q. When did you first produce such strip? A. About six, seven years ago.

Q. What was that strip composed of? A. Mostly acetate.

Q. Cellulose acetate? A. Cellulose acetate.

Q. Tenite 1. A. Tenite 1.

Q. Have you ever extruded strip materials made from cellulose acetate and butyrate? A. Well, we once did and —shall I continue?

Q. Please. A. We were asked to stop because of certain patents and we decided to stop.

Q. When was this? A. I don't recall the date, but several years ago.

Q. Before you were asked to stop, what had you done? (395) A. Well, just a combination of the two materials in quantities that suited our purposes, a mixture of acetate and butyrate.

Q. You mixed up cellulose acetate and cellulose acetate butyrate? A. That's right.

Q. And in what form did you produce it? A. When we mix it, the extrusion machine just melts the two, and depending upon the type of die you put on the machine is what you get out of it. In this case we extruded a flat strip for stays.

Q. And what was the characteristics of that stay material? A. Well, because of the mixture, we had that stringy type of effect, after it was sewn, so that it doesn't break on bending.

Q. And you produced this material when can you say? A. Several years ago. I don't recall the exact time. It must be four, five years ago—three, four years ago.

Q. For what purpose, and who was the customer? A. For people in the binding business that supplied the dress and brassiere people.

Q. Who requested you to stop? A. Anchor Plastics.

Q. Did they request you to stop? A. Well, not directly. We had sold some of our accounts, (396) and I don't recall whether we had gotten a letter directly from them or whether our customer had gotten letters from them directly telling them not to use that material. And when

we dug into it we found that there was a patent like that existing and we decided not to get involved.

Q. So you stopped making it? A. We stopped making it.

Q. Had you ever produced a strip of material of cellulose acetate and cellulose acetate butyrate prior to that time? A. Well, of course, unwillingly we always ran into that type of problem, because it is a known fact that acetate and butyrate should not be mixed because of the resulting conditions where things become stringy, and not good surfaces; where the surfaces can be exposed, has to be exposed, naturally, that type of surface is not desirable. But when it is covered, and not exposed to the eye, it really doesn't make any difference. And some time ago, about—I don't recall, it must been eight, nine years ago, ten years ago—we had occasion to sell some toy manufacturer some material, used for an axle between two wheels—during the wartime they couldn't get any steel and we supplied that axle in acetate—and at one time, because of the nature of the acetate, it was a little too hard, or it didn't function properly, we gave it to him in butyrate, and when the item was at an end, he returned (397) a certain amount to us because he couldn't use it any more, he was able to get the steel, and when he returned it, he didn't tell us that there was acetate and butyrate mixed, he thought he had already used up all his acetate material, and we ground it up, and we found that we had a mixture of acetate and butyrate there, and we decided to separate it by a commercial separator. There was a certain amount of the material that normally cannot be separated, when it is ground up, there is powder formed, because of the density, the specific gravity of the two pieces, butyrate will rise to the top of the liquid, where acetate will sink. But in powder form the specific gravity don't add up to any amount, and it floats just with the butyrate like it would be butyrate. And because

of that, when we mixed it and they separated it, and we ground the butyrate, we found that we had a certain amount of acetate mixed into it. We had no trouble at that time extruding it, and a certain percentage is permissible in contamination, you can get away with it.

But we haxe extruded contaminated materials for a long time, not willingly, but human elements, with the men in the shop mixing materials that they weren't able to control, or they were careless about things—when the contamination gets too great, we can't do anything with it, but the normal amount of five per cent we have no trouble at all extruding.

(398) Q. Now, reverting to these axles you mentioned for toy automobiles during the war, what were they made of? A. My axles were made out of acetate and later we supplied it again in butyrate.

Q. And then what happened? A. When they returned it, and we had to grind it up, we found the contamination between the two.

Q. How did you find it out? A. When we extruded it, and found that there was—there was no way of knowing, you can't tell the difference when you see the two pieces, but when you start extruding you find these—like laminated pieces, you can just strip it right off. There are pieces that cling to the surface, or sometimes there is a heavy piece and that will be inside, but you can immediately tell from the surface that there has been a contamination in there.

Q. So that in—or during the war—I assume that's World War II, is that correct? A. That's right.

Q. —you had some axles returned which had been made of both cellulose acetate and cellulose acetate butyrate? A. That's right.

Q. And they were reground without your knowing what they were composed of? A. That's right.

(399) Q. And then you extruded that reground material? A. That's right.

Q. And what did you find? A. Well, like I say, we found that there was that contamination in there that was very noticeable by these stringy, laminated surfaces that normally wouldn't be acceptable for open vision pieces, but the hidden pieces, it is acceptable.

Q. So you found that this material produced a stringy material? A. That's right.

Q. Was it extruded in strip form? A. This was quite a heavy shape. It was about three-quarters of an inch wide by about three-sixteenths thick.

Q. And it produced laminations? A. That's right.

Q. What did you do with the material that had been reground and hadn't been extruded yet? A. When the material is used, very little you can do with it, but those that were not yet extruded we were able to separate and use independently, acetate independent of butyrate, but, like I say, in the butyrate there was a contamination of acetate that we couldn't very well avoid, but we were able to use it.

Q. Do you have any records or other documents which (400) refresh your recollection as to this occurrence which you have described? A. Yes, I have a few letters from me to the commercial grinders, and to this customer, dated June, 1943 and 1944.

Q. In what way do those letters refresh your recollection as to when this occurred? A. Just the fact that we have this 1500 pounds of extruded materials and we found that some of it was contaminated and we had to advise them that we are going to send it to the commercial separator to separate the two materials. He separates the two different types of materials.

Q. So that you sent to a commercial separator reground admixture of Tenite 1 and Tenite 2 so as to sepa-

rate it back into Tenite 1 and Tenite 2? A. At that time they weren't extruded together, they were extruded independently, but were mixed in the shipment, so we ground them up.

Q. They were in the same drums? A. That's right.

• • •

(403) By Mr. Churchill:

Q. In the extrusion of Tenite 1 or Tenite 2 how do you purge out the machine when switching from one to the other? A. Well, when we have butyrate in the machine we usually find that we can push acetate right behind it, and are able to handle a clear material after a certain amount of time—five, ten minutes. But when we have acetate in the machine we seldom are able to push butyrate behind it. For some reason it doesn't seem to want to push it all out, and some of the film sticks around the cylinder and the worm.

Q. When you push butyrate—I think you said you can push— A. I can push buytrate with acetate, but I can't put—

Q. When you push butyrate with acetate do you take the machine apart? A. No.

Q. Do you keep it heated up? A. Yes, we keep it runing.

Q. Keep it running. You leave the die on. A. Well, to get a faster purge we might take the die off, to get the material coming out faster. There is a restriction with a die on it.

Q. Do you ever purge with the die on? (404) A. It isn't practical. It could be done, but it isn't practical. It takes much longer, because the die, naturally, is a smaller orifice.

Q. Did you ever observe the product which is produced by pushing one material after the other? A. There is no

question when the two materials start to combine you get that laminated, stringy material, and you can tell immediately that material is still contaminated. And until you have sufficient of the new type material coming through, you realize that you have got a clean surface, then you know you can start saving your new job.

Q. So you watch for the end of the stringy surface before you are ready to start work? A. That's right.

Q. How long have you purged in this fashion? A. Well, when we first started in business, 14 years ago, we used to push the screw out every time we needed to start the other material, but in the last eight, nine years we have been pushing the material out in that fashion and we are able to get away with it. It saves a lot of time, because taking the screw out of the cylinder involves two, three hours work. The screw has to be cleaned off and cleaned with acetone and all the material cleaned away thoroughly.

Q. So that you watch for the end of the fibers and (405) then you know that you have clear material? A. That, among little gell marks, and things like that, we know your contamination is clear.

Q. When you say "contamination" what do you understand by that word? A. Well, contamination is a mixture of acetate and butyrate, or any other unlike materials that are not compatible.

Q. And what has been your experience in mixing the two incompatible materials, such as acetate and butyrate? A. Well, we don't mix them, we don't mix it purposely. If we have a small amount, and the surface isn't too bad, we accept it, depending on the type of job it is.

Q. And why don't you mix them purposely? A. Because of this condition. You get the stringy, laminated effect, that is not desirable in plastic pieces, while you are looking for clean, smooth surfaces that have beauty.

Q. Did you ever desire that stringy effect? A. Well,

the only time we ever desired it was when we made that material for the boning.

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(408) By Mr. Churchill:

Q. How long did it take you to produce a stay material which could be sewn across after the customer requested it? A. Well, I didn't do it on my own accord, truthfully. When I saw what was being offered, I immediately recognized what was being done, and I was able to do it with no trouble at all.

Q. You saw an extruded strip. A. An extruded strip that was shown me, and there was no question that it was —it was a question of contamination, because it was a similar type of contamination we had in our years of extrusion.

Q. You recognized it as a contaminated strip? A. That's right.

Q. Of a mixture of what? A. Acetate and butyrate, Tenite 1 and Tenite 2.

Q. Which formed fibers. A. Which formed laminated fibers.

Q. Your answer was? (409) A. Yes.

Q. So you just duplicated that same strip? A. That's right.

Q. And contaminated acetate with butyrate? A. That's right.

Mr. Churchill: That is all.

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(423) Re-direct Examination by Mr. Churchill:

Q. In 1943, Mr. Schlussel, when you undertook to have the admixtures of cellulose acetate and cellulose acetate butyrate, or Tenite 1 and Tenite 2 separated, if you had

run that through an extrusion machine to form a strip, what would you expect to get? A. You would get a contaminated material, depending on the amount—I don't recall how much contamination there was between the two materials at the time, but if there was a sufficient quantity of it it would be not usable for the type—that type of a job. If the material was covered, (424) you probably could use it. It does separate, if you run it.

Q. In 1943 you knew if you ran it through an extrusion die you would get a contaminated material? A. Oh, yes.

Q. And that would be a material which would separate? A. Definitely.

Q. In your definition of contamination, is this Exhibit P-6 a contaminated material or not? A. It is.

Mr. Churchill: That is all, your Honor.

Mr. Greene: Just one moment.

Re-cross Examination by Mr. Greene:

Q. When did you first see Bonar, after 1949, the material in suit here? A. It was made—I saw it after Anchor made it. I didn't see it before. I don't recall the date that I saw it.

Q. Did you ever have a contaminated piece just like Bonar? A. I never made anything like that, like Bonar, only after I saw it. I had contaminated strips, but I didn't make any pieces like that, no.

Q. Well, I am just concerned with your definition that this is contaminated. A contaminated piece is a piece you discard, isn't it, that you throw away? A. Yes, but Bonar —of course, I am not your witness— (425) but Bonar is a contamination of acetate and butyrate, and I call it contamination. It might be—it might serve your purpose, but it still is a contamination of two materials in certain proportions. And if it is a small contamination it will give you less stripping, that is all.

Q. Did you ever see a strip like this before, not with respect to this particular size, I mean a smooth surface, white surface, that is separated into fibers like that? A. Before Anchor made it?

Q. Yes. A. Only when I extruded material that I didn't want to extrude. When I had contaminations of unwilling materials that the boys contaminated by error, I used to get stuff like that, but I didn't run that type of material at all, I ran it in bigger pieces, like I said, that axle piece.

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(426) R. LEONARD HASCHE, resumed the stand:

Direct Examination (Continued) by Mr. Churchill:

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(441) Q. At the sprue point you are carrying on extrusion? A. That's right.

Q. And you have found that you got longitudinal fibers in the sprue? A. That's right.

Q. How long ago did you see that? A. Oh, from my early work on plastics, early in 1932.

Q. Prior to 1948. A. Oh, yes.

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(446) WILLIAM L. SEARLES, called and sworn for the defendant, testified as follows:

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(462) Direct Examination by Mr. Churchill:

Q. Did you ever see extrusion done at the Tennessee Eastman Company in Kingsport, Tennessee? A. Yes, sir.

Q. When did you first see the extrusion done there? A. I couldn't say the year, but it was at the time when we got

our first extruder for experimental and development work. What year that was, I don't remember.

Q. More than ten years ago? A. I believe so, yes.

Q. Did you ever hear of Dr. Hasche at the Tennessee Eastman Company? A. Yes, sir.

Q. What was his position with the Tennessee Eastman Company? A. I am not sure what his position was. I believe he was in research, or research and development, I am not sure.

Q. What was the purpose of Tennessee Eastman Company having extrusion equipment at Kingsport, Tennessee? (463) A. To extrude materials of our manufacture, to learn about the behavior of these materials in the extrusion process.

Q. It was not engaged in the commercial molding business, or extruding business? A. No, sir; that is against our policy.

Q. It was just for the purpose of doing research work and development work on your materials, is that correct? A. That's right.

Q. Did anyone in the Tennessee Eastman Company ever explain to you that on admixing Tenite 1 and Tenite 2, and extruding the same, it would produce longitudinal fibers? A. No, sir.

Q. Did you ever acquire such knowledge? A. Certainly.

Q. When did you acquire such knowledge? A. That's impossible to say. It was some time during the course of my observation of the extrusion of our materials which had been mixed.

Q. Was it before 1948? A. Yes, sir.

Q. Well before 1948? A. I believe so.

Q. So that in 1948, or earlier, you had the knowledge that if Tenite 1 and Tenite 2 were admixed and extruded into a strip form it would produce longitudinal fibers in that (464) strip, is that correct? A. Not always. It may

at times, depending upon the percentages of the components. Not always.

Q. What percentage would be required to produce longitudinal fibers? A. We never bothered to determine that. I don't know.

Q. But if there were proper percentages of the two, you saw these longitudinal fibers formed? A. They could be described as longitudinal fibers, I believe.

The Court: We will take a short recess.
(Short recess.)

Q. Mr. Searles, have you ever observed in a molder's plant, on extrusion work, an extruder switchover from extruding Tenite 1 on the same machine to extruding Tenite 2? A. Yes, sir.

Q. Have you ever seen them follow one after the other without taking the machine apart or changing the die? A. Yes, sir; I have seen that.

Q. And what did you observe took place when Tenite 1 followed Tenite 2, or vice versa? A. That the product was one which, so far as I knew, had no use.

Q. It was contaminated? A. Yes.

Q. How could you tell it was contaminated? (465) A. If the contamination were great enough, simply by the appearance.

Mr. Churchill: May I have the answer read?
(Answer read.)

Q. And what would be the nature of that appearance which would indicate great contamination? A. Great contamination? Well, if the materials were of the same color the surface of the product would appear scaly, or we use the term "Mica-like" flakes appearing in the surface, or, if the contamination were great, it wouldn't look like much

of anything, it would just be a mass of material resembling, more than anything that occurs to me, taffy candy.

Q. And then the extruder would continue to run the machine until the contamination disappeared, is that correct? A. That's true.

Q. And he could tell when the contamination disappeared? A. No, sir; because in the construction of the interior of a machine there are places where the material passing through can hang up and it may hang there for some time and the product coming out may look to be good, and every now and then the product, or the material, hung up inside the cylinder would be wiped off and appear in the finished product. So it usually took a long time and you couldn't be sure how long it would take to get a product uncontaminated.

(466) Q. You have seen molders follow those practices? A. Oh, yes, I have seen them do that.

Q. How long ago have you seen them do that? A. Well, it is done pretty regularly.

Q. Prior to 1948? A. Yes, sir.

Q. Is it still done? A. Yes, sir. However, if I may add, the quicker way of doing it, and being sure in less time that the material being purged is pretty well cleaned out is to remove the die, the breaker plate and the screens, and then the material can come out unrestricted, and the wiping action inside the cylinder is a little more effective and fast.

Q. But both are known methods of purging, are they not? A. Both are known methods of purging; yes, sir.

Q. When you say the strip was scaly, would it also be laminated? A. Yes, sir.

Q. And it would be laminated in such fashion that it could be torn along the length of the extrusion, is that correct? A. It could be torn—

Q. Or separated? A.—in almost any direction, transverse or longitudinal.

William L. Searles—For Defendant—Cross.

Q. If it is an extruded product the laminations could (467) be peeled off in the direction of the extruding? A. They can be, yes.

Q. Well, that is one of the characteristics, is it not, of the extruded laminated strip product— A. Yes, sir.

Q. —the laminations can be peeled off in the direction of the strip, or extruding? A. Yes.

Q. And you knew this before or after 1948? A. Before 1948.

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(474) Cross Examination:

Q. What did they use to urge machines, did they put in pure virgin acetate when they were purging a machine of butyrate, or pure butyrate when they were purging a machine of acetate? A. Yes, they would use reground material, where they could, because it was cheaper to clean a machine with a reground material than with a virgin material. And if it were uncontaminated, it would be just as effective.

Q. Is it a fact that such material as comes within the purge area is discarded? A. Yes, where the two mix, the two materials mix, it is generally discarded.

Q. Is there anything you can think of doing with it? A. Nothing that I can think of doing with it.

Q. Did you ever hear of anybody doing anything with it? A. No, sir; outside of this.

Q. Would you think then that a molder—

The Court: You mean outside of Bonar?

Mr. Churchill: Referring to the plaintiff's exhibit, I believe.

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(479) Q. So that in normal molding practice these extruders may use any one of those materials and may be

purging the machine of acrylic or a Polythene, foreign acetate—I want it to be clear that these molders just don't use Tenite 1 and Tenite 2 and run back and forth from one whenever the occasion demands, there are a lot of different molding materials. A. That's right.

Q. And they can purge, if they do purge, any one of those with any one of the others, if they used that practice? A. I believe so.

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(482) Q. When did you first see this product before you, which is P-6, the Bonar strip? A. I have no recollection at all of when it might have been.

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(483) Q. Well, would you have thought that if you put Tenite 1 and Tenite 2 together and extruded them that you would come up with a product such as P-6? A. I wouldn't expect a product as good looking, let me put it, for lack of a better term, good looking relative to the same thing as might be made from an uncontaminated material. Looking at the ends, I would immediately know that it was (484) a mixture of two incompatible materials.

Q. If you didn't have the frayed open end like that, and it was in a solid piece, would you know it? A. I wouldn't know that it was contaminated, or whether it was contaminated.

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(489) Q. Would you have expected this structure, from your knowledge of Tenite 1 and Tenite 2? A. Would I have expected—

Q. The structure that you see in P-6. A. Yes, I might have expected that, just from observing in scrap purged from a machine, that it can be peeled, and in the peelings you see fine thread-like sections, pieces.

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William L. Searles—For Defendant—Re-direct.
George Streisguth—For Defendant—Direct.

(495) Re-direct Examination by Mr. Churchill:

Q. Is Tenite 1 plain cellulose acetate or does it have something else in it? A. It has only plasticizers and coloring agents. Where clear transparent is not desired the coloring agent is used. It all has some plasticizer.

Q. So that Tenite 1 is cellulose acetate plus a material known as a plasticizer? A. That's right.

Q. And Tenite 2 is cellulose acetate butyrate plus a material known as plasticizer? A. That's right.

Q. So that it is not proper always to refer to Tenite 1 as being synonymous with cellulose acetate, and to Tenite 2 as being synonymous with cellulose acetate butyrate? A. Strictly speaking, no.

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(504) GEORGE STREISGUTH, called and sworn for the defendant, testified as follows:

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(505) Direct Examination by Mr. Churchill:

Q. How old are you, Mr. Streisguth? A. 40.

Q. What is your academic background? A. I graduated from Colgate University in 1936, a Bachelor of Arts, Cum Laude.

Q. Where are you employed? A. At present I am self-employed in a partnership known as World Plastex in the Bronx, New York.

Q. How long have you been employed by World Plastex? A. The partnership is seven years old.

Q. It started in what year? A. 1947.

Q. What is the nature of the business of World Plastex? A. We are custom extruders of thermoplastics.

Q. How long have you been concerned with extruding thermoplastic material? A. Since 1940.

Q. How long have you been engaged in the plastic business, as such? A. 1936.

(506) Q. What type of plastic work did you do in 1936? A. I was connected with a firm in Newark molding Casein Buttons.

Q. What was the name of that company? A. Synthetic Plastics.

Q. What type of molding did you do at Synthetic Plastics? A. It was a compression molding outfit.

Q. Where were you employed thereafter? A. Well, I worked for Lapin Products in Newark. They were injection molders. And I was there for a little more than two years. And then I went with R. D. Werner Company in New York for approximately two years, also. And subsequent to that I was with Industrial Synthetics in Irvington and with Gering Products in Kenilworth before I went in my own business.

Q. When was the first time you did extrusion molding? A. 1940.

Q. And where was that? A. R. D. Werner Company, New York City.

Q. And what type of materials were used by R. D. Werner Company? A. Cellulose acetate, ethyl cellulose and cellulose acetate butyrate.

Q. Were any of these materials obtained from the Tennessee Eastman Company? (507) A. Yes, the butyrate and some of the acetate.

Q. What type of products did you extrude at Werner's? A. We were manufacturers of architectural trim and linoleum trim shapes. They would be such things as table edgings, and stair nosings, and imitations of metal.

Q. While you were at Werner's did you ever have occasion to switch from acetate to butyrate? A. Yes, we had various occasions at that time.

Q. How was that done? A. In some cases we followed one material behind the other and tried to segregate the pure materials of one type from the other in a later operation. Occasionally we took the big machines apart and cleaned them before we did it.

Q. Is there any name ascribed to running one material after another? A. A word like "purging" might be applied. I don't know whether there is any other term usual in the industry.

Q. You would call it "purging," would you? A. That's right.

Q. Did you ever observe what happened when you ran the cellulose acetate after the butyrate, or vice-versa? A. Yes, the product would come out laminated, would be very fibrous, and separate up into small strands, and result in a very unsatisfactory product.

Q. And you observed that at Werner's? (508) A. I observed that in Werner's.

Q. Did you observe it any place else? A. Yes, prior to that, the injection molding machine when I was working for the injection molders, why, we accidentally contaminated some acetate with some butyrate, and at that time we got the same result, or very close to the same result.

Q. Have you ever accidentally contaminated acetate and butyrate since that time? A. Well, unfortunately my men are doing that fairly regular. I can't help myself. We try not to do it, but it does happen.

Q. And what happens, and how do you observe that it has been contaminated? A. Well, we see the result almost immediately in the product, that is, the material will tend to string and break off into fibrous sections, and when it happens the operators know exactly what has happened, and they can correct it as soon as possible by changing the materials.

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(510) Q. What is the commercial use for that type of construction which has been marked for identification as Defendant's Exhibit D-17? A. Well, this particular material I would have some difficulty in disposing of it as a commercial article because of the fact that when it is handled it will tend to segregate out like that. However, in making up the articles which are made by a subsidiary concern of ours, called Jewel Molding Corporation, we do sell hat clips, and occasionally have had some contamination and sold the articles without anybody being aware of the fact that they were contaminated.

Q. And what are they sold for? A. These are sold for use inside hats, and we make a line also that is used for holding hair in place, bandeaux.

Mr. Churchill: Will you mark this hat band D-18 for identification.

(Marked Exhibit D-18 for identification.)

Q. I show you what has been marked for identification as Defendant's Exhibit D-18 and ask you if you recognize it, sir? A. Yes, this is one of our standard hat clips.

Q. And what is the material there used? A. Cellulose acetate.

(511) Q. Was that prepared in the same injection mold from which this sample, D-17, has been made? A. Yes, this is from the same mold.

Q. So that one of the strips which are fastened to the cross runner constitutes one hat band, is that correct? A. That's right. We treat them subsequent to the injection mold, put the corrugations on and also form them into the shape.

Q. Referring to Exhibit D-17 for identification, sir, will you state what the cross bar is commonly called which

connects all these hat band pieces and what the short length is called? A. Yes, this in the injection molding field is called the sprue, which comes from the cylinder to the main cross members of the die section. These across here are called runners. There happens to be two in this particular instance. And this is the die cavity itself that makes the long strip.

Q. Now, the sprue represents material which has been injected through a small orifice, is that correct? A. That's right.

Q. And the side runners are further orifices which feed into the long cavities, is that correct? A. That's right. It is very similar to lead casting, in a way, that is, you have a main stem which is divided up into subsidiary materials and then down through the main (512) cavity to get your final product.

Q. So the sprue, when formed, is formed by extruding material through a small orifice, is that correct— A. Well,—

Q. —or forcing it through a small orifice? A. It is forced through the nozzle into the die under high pressure.

Q. Does the sprue have any fibrous construction in that example? A. Yes, if you can abuse it and twist it around you will find it has the same nature, it takes a good deal of force, though, because this is quite heavy. I don't think I could do it by hand.

Q. When was the first time you did extrusion molding, as such? A. In 1940.

Q. Did you ever produce strips? A. Yes.

Q. Did you ever admix butyrate and acetate in forming such strips? A. Not deliberately.

Q. Accidentally? A. Yes, we had several cases of that happening in the period of the year and a half I was at Werner's.

George Streisguth—For Defendant—Direct.

Q. Can you fix a time period within which this occurred? (513) A. Yes, some time between January of 1940 and December, 1942.

Q. And what did you observe about those strips which had been formed, or contaminated accidentally, between acetate and butyrate? A. The resulting products were laminated, would peel, would show fibrous structure.

Q. Were you the only one who saw it at the time? A. No, I think most everybody in either the injection or extrusion business that used two materials saw this result, sooner or later.

Q. How could you tell that it had been contaminated? A. By experience I knew that when I saw this condition I had incompatible materials.

Q. Would it show up when these strips were cut to lengths? A. Yes, if these strips were run through a saw, or handled in any any manner in cutting, the fibers would definitely break off on the ends.

Q. And that would be a clear indication that the materials had been admixed? A. That's right.

Q. Were you ever asked to produce boning for the brassiere trade? A. Yes, soon after we started in business, in 1947, we were manufacturing boning for several different outfits in New York City.

(514) Q. What type of boning were you supplying at that time? A. Cellulose acetate.

Q. Were you ever asked to produce a boning material different than cellulose acetate? A. Yes, early in 1949 one of my customers asked me to produce a fibrous boning.

Q. Will you describe how that came about, please? A. Well, we had been supplying standard boning, straight cellulose acetate material, for about a year to this one party, and they brought in a sample of competitive boning with a fibrous structure and they asked me if I could produce such a material.

Q. And what did you say? A. I said, "Yes, the material is very easy to duplicate." And within a day or two, why, he had samples for test purposes.

Q. What caused you to say it is very easy to duplicate? A. Because I knew from experience that the fibrous structure only indicated a contamination with either cellulose acetate butyrate or with ethyl cellulose.

Q. And what did you use to produce this fibrous strip? A. We used cellulose acetate butyrate, mixed.

Q. In what proportions, do you remember? A. Approximately 15 per cent.

Q. 15 per cent of which one? (515) A. 15 per cent butyrate and acetate.

Q. Why did you favor the acetate, percentagewise? A. Because acetate was so much cheaper I preferred to use the bulk of the material in the less expensive material.

Q. So you added 15 per cent of the more expensive material, butyrate? A. To the less expensive material, yes.

Q. Did you produce fibers? A. Yes, I produced the result the customer wanted.

Q. And the customer stated his purpose was— A. He needed the material for use in boning that could be sewn across.

Q. What was the name of that customer? A. Durable Supply Company.

Q. How long did you continue to supply Durable Supply Company with this type of boning material? A. I would say approximately two years, perhaps a little longer.

Q. Do you know who supplies Durable now? A. Anchor Plastics.

Q. The plaintiff in this suit? A. Yes.

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(516) Q. Do you still have mistakes happen from time to time? A. Yes, numerous, unfortunately.

Q. Of the two materials being contaminated? A. Well, not so much from the acetate and butyrate, we have had more trouble with ethyl cellulose in our acetate. They are even more closely allied, if you could say that about them. They look very, very similar. And we manage to dispose of all the stuff that comes, whether it is acci (517) dental or otherwise. We have used it up in small percentages. Every one of the materials has a tolerance for contamination. We find that acetate has a tolerance of about two per cent with butyrate and about one per cent with ethyl cellulose, and when we run a job that is not too critical, we can dispose of our contaminating materials.

So that you continued to run some butyrate into the acetate as long as the tolerance does not get to the point where the customer will detect these fibers, is that correct? A. That's right.

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(525) By Mr. Churchill:

Q. Did you also furnish me with this label, Mr. Streisguth? A. Yes.

Q. When did you obtain that label, and where? A. This was in—on one of the drums of one of our last shipments from the Celanese Corporation. I would say it came to our plant in the month of May, this year. And this is put on the side of every one of their drums, near the label.

Q. And the Celanese product is cellulose acetate, is that correct? A. That's right.

Q. And it constitutes a warning not to mix with other plastics, does it not? A. Yes, it states, "The molding material in this drum is based on cellulose acetate. Caution: Do not mix with any (526) other plastic. Failure to comply will result in lamination, brittleness, skinning or scaliness."

George Streisguth—For Defendant—Cross.

Q. So that as far as your information is, these warnings are still being used? A. Yes, they are.

Mr. Churchill: I ask that the label identified by the witness be marked for identification.

The Clerk: It will be marked Exhibit D-27.

(Marked Exhibit D-27 for identification.)

Mr. Churchill: It has a counterpart on the chart, P-23. This is just evidence—merely to show that these labels are still being used.

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(535) Cross Examination:

Q. That's my point here. I want to know if you do use the same machine, with the same die in place, first for the acetate and then for the butyrate, running one after the other? A. I follow one behind the other in purging, but I mentioned before that after the material is fairly well purged—I believe I mentioned this, we disassemble the machine, and clean the breaker plates, and screens, and reassemble a die. I didn't say it was the same identical die. We might change the die to another profile, or another shape, (536) according to whatever orders we have on hand at the moment.

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Q. And I ask you if you have a specific recollection of running cellulose acetate after cellulose acetate butyrate through the same mold,—same die, I meant—for the same product? A. Yes.

Q. When and what? A. I extrude in cellulose acetate butyrate for sunglass industries in Newark a strip approximately four inches wide by about three-sixteenths thick, which they use in their sunglasses. I also extrude

that same identical strip in the same identical colors in acetate for May Manufacturing. And we have on occasion had simultaneous orders, in which case we follow one behind the other and produce them.

Q. And when was that? A. In 1952.

Q. Do you remember any before that? A. No, offhand, I do not.

Q. Well, not offhand—you see, 1952 doesn't help us too much, because that's the years after the patent came out, (537) so the dates that we talk about are always dates before 1949. And I want to call your attention to that. A. I have never run my plant according to any patent, or anything like that. I have done it for my own convenience and production. If I have to follow acetate behind butyrate, and I run my machine and flush out the butyrate with the acetate, and then put a new die on, I don't see where it becomes a problem of the patent or this court.

Q. I think you mistake me. I am not now seeking to find out whether you do what the patent calls for, we are trying to find out whether your practices, or those of anyone else, before the patent came out, amounted to the same thing, and much of your proof indicates that you think it does, but I don't want you to rely on—I am not willing to rely on something you tell me happens in 1952, and I would like, therefore, if you can, to search your memory and tell me of a specific instance in which you followed acetate with acetate butyrate in the same die, for the same product, obviously. A. I mentioned the one case in '52. I don't recall of any other time when I have actually done that and continued with the same die.

Q. All right. And then you disassembled the die head for the purpose— A. We just disassembled the die head, put a new screen in, and change the breaker plate, and we go back right into (538) production.

Q. Why don't you take the die off before you purge? A. Because we have found, as a matter of procedure, that

when the die head is off the scouring action within the barrel is not as rapid as if we were to follow in the continuous process, where we had the back pressures, and so forth, that are caused by the die, and the breaker plate, and the screen. We can scour from one material to the other with a loss of, perhaps, 15 pounds, or so, of material which will come out contaminated, which I then have to use up in whatever manner I can later on. If I take it off and let it go into a big blob at the end of the machine I have no use for the material, I have no equipment that I could possible break it up. I would have to just throw that material away.

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(545) By Mr. Greene:

Q. Do you follow the same operation when you have different colors to run? A. Yes.

Q. How does that work out there now; I am talking, one, about where you have a purge, or a continuation, if you want, of one color to another, example such operation for me, if you will. A. You mean, for instance, if I want to change, let's say, from a red tube to a green tube?

(546) Q. Correct. A. I follow directly the green behind the red, I let the machine extrude until the color is pure.

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(556) Q. But so far as you were aware, there were no special problems with acetate, and by that I mean, did you have any reason to believe that acetate wasn't so good for the reasons I gave, as a boning material? A. We still sell thousands of pounds of acetate boning every month. We sell it to the dress goods industry.

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(563) Q. Had you ever done that, or used similar contaminated material in that injection mold before? A. Not that particular machine, but I had used it in 1939, 1940.

Q. When you say you had used it, what do you mean by "it"? A. Contaminated material.

Q. How? (564) A. In injection molding of toys.

Q. Why? A. Because the material got accidentally contaminated and I wasn't going to throw the material away. I used it up.

Q. How did it come out? A. It came out slightly laminated, and slightly fibrous, but not enough to destroy the usefulness of the product.

Q. How could you tell from looking at this—one of these pieces they have here? A. You couldn't tell it, if you didn't know it, no more than you can tell by looking at that, that it is contaminated, if I didn't tell you, or if you didn't abuse it in some way to determine the fibrous characteristic.

Q. How would you use it in a toy; how would you know it came out that way, contaminated, in a toy? A. Because I could tell by the evidence at the gate, where it tends to pull off fibrous, that it was contaminated. But I know the business and the average person buying a product wouldn't know to look for that particular defect and they would buy it and never even question it.

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(573) JOHN NOVELO, called and sworn for the defendant, testified as follows:

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(574) Direct Examination by Mr. Churchill:

Q. And what was your job with Whiteford? A. Well, I was a foreman there at that time, and we were doing—making pocketbook handles.

Q. As foreman, what were your duties? A. Well, we would extrude the material and coil it into different shapes.

Q. How many extruders did you have under your jurisdiction as foreman? A. Three.

Q. And was each machine run by an operator? A. Yes.

Q. And you supervised the operation of three machines? A. I supervised the operation.

Q. What type of materials did you use at Whiteford? A. Well, primarily they were acetate and butyrate.

Q. And what were these materials used in making, principally? A. Pocketbook handles or pocketbook trimmings.

(575) Q. While you were at Whiteford did you ever produce any product which resulted from an admixture of acetate and butyrate? A. We did, we made pocketbook handles.

Q. Will you explain, please, how that came about? A. Well, at that particular time we were in the war, and all materials were under allocation, so we were forced to buy scrap material, which was partly contaminated, and produced handbag handles from that.

Q. Were you able to buy pure cellulose acetate at the time? A. No, we were not.

Q. Were you able to buy pure cellulose acetate butyrate at the time? A. Just a very small percentage.

Q. Where did you obtain most of your materials during the war, World War II? A. It was mostly from scrap dealers.

Q. And what would you do with that material when you obtained it from scrap dealers? A. Well, we would have to re-run it over and over again to blend the materials so it would be a salable product.

Q. When you ran the scrap material first though your extruder to produce a pocketbook handle, did you say? A. That's right.

(576) Q. — what did you observe? A. Well, we would have a fibrous appearance, and we would just have to re-

run the material over and over again until we burned out part of the contamination, out of it, until it would become a uniform attractive looking handle.

Q. How many times would you re-extrude the material before it became attractive? A. Sometimes, seven times.

Q. Seven times? A. Yes.

Q. And was this your practice during World War II? A. Well, we couldn't get any material, we had to do it.

Q. You knew it was cellulose acetate? A. Well, it was primarily cellulose acetate butyrate, contaminated.

Q. It was a mixture of the two? A. Well, it was primarily butyrate.

Q. Primarily butyrate? A. Yes, with cellulose acetate contamination.

Q. So it was primarily butyrate with some acetate contamination? A. That's right.

Q. When did you leave Whiteford? A. 1945.

Q. What type of products do you produce at Waljohn's? (577) A. We produce primarily screwdriver rods, in other words, tool stock, and luggage bindingss, and leather—ladies' —what we call vinyl belting.

Q. Do you use any acetate or butyrate at Waljohn's? A. Yes, we do, for screwdrivers.

Q. Which one do you use? A. Both.

Q. Did you ever have them admixed at Waljohn's? A. Yes, we all have them.

Q. What happened? A. Well, what we do is, we sell our scrap, I mean, we don't use it over again, and we have gotten to the point where we have very little of it.

Q. How can you tell when the two have been admixed? A. Well, it becomes like a spongy substance, with fibers, soft. It depends on the degree of contamination.

Q. Did you ever have that happen to your screwdriver handles? A. Yes. I mean, people in the shop are bound to make mistakes and they will take from the wrong oven and contaminate the material.

Q. I show you what has been marked as Defendant's Exhibit D-24 and ask whether this rod conforms more or less to the type of diameter and shape of a pocketbook-handle? A. Yes, just about that.

(578) Q. About the same diameter? A. That and a little larger.

Q. A little bit larger. It was produced by running the material through a die? A. Yes, sir; a round die.

Q. It comes out in long lengths, does it? A. Well, we were coiling it right off the machine, and we would make big spools out of it, we would run maybe 60 feet or so.

Q. And you would supply it to the customer in coils? A. That's right.

Q. What color was it most of the time? A. Well, it was a transparent amber.

Q. How many extruders did Whiteford have? A. Three.

Q. How did Whiteford purge his extruders? A. Well, at that time we weren't too familiar with the—we didn't have these new heads, so we would follow through with one material after the other till we purged out.

Q. Would you elaborate on that, please; just how would you do it? A. Well, it was a matter of taking off about 12 bolts from the die head, then taking out your die, and your die receptacle, your screens, and clean the whole machine out. Whereas that took about two or three hours, to clean out, it paid us just (579) to leave the die on and keep extruding.

Q. And run the next material through after it? A. Run the next material through.

Q. Did you ever run butyrate after acetate, or vice versa? A. I imagine we did do it.

Q. You don't recall offhand? A. I don't recall.

Q. In your present plant at Waljohn's, how do you purge? A. Well, our production is set so that we do not have too much purging. We have long runs and we just go from one into the other. We can go from acetate to

butyrate, or butyrate to acetate in—well, we may not lose any more than twelve or fourteen pounds.

Mr. Greene: I didn't hear the last.

The Witness: 12 or 14 pounds.

The Court: Just a minute. I didn't get that last sentence.

(Record read.)

Q. That's where you follow one after the other? A. That's right.

Q. Have you ever had a machine wherein you never purged any other way than by running one material after the other? A. No, we don't have any.

Q. On screwdriver handles, do you ever take the machine (580) apart to clean it out and switch the material? A. Occasionally, but not too often.

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(581) By Mr. Churchill:

Q. Did you ever warn any of your men, operators of extruders who came under your jurisdiction at Whiteford, did (582) you ever warn them not to mix the acetate and butyrate? A. That's one of the first rules in the extrusion plants, is to teach people the difference between materials so we don't have any contamination.

* * *

Q. What did you explain to your operators would happen if they did contaminate two materials? A. Well, we would tell them they would have a non-salable product, and we would show them just exactly how it would bubble up and peel. And we also explained to them if we only had a slight contamination how it would laminate.

Q. And if he had a major contamination? A. If he had

a major contamination we would just have to sell the material for scrap.

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(583) Q. Will you describe once more for me the pocketbook handles to which you referred on their first run through an extruder when you used this contaminated material during World War II? A. Well, we would have more or less a bubbly, stringy rod, and it was very soft, and more cottony feeling, you might (584) say, and then we would take the material, regrind it, run it through the extruder over again. And that would have to be done about not less than six or seven times.

Q. In that way you eliminated that cottony effect? That's right, it would blend.

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(586) Cross Examination

Q. Now, this broke. What would happen if I did the same thing to the handle that you were testifying about that you made a while back? A. If you did that?

Q. Yes. A. I would imagine we would get laminations.

Q. Did you ever do it? A. Certainly we did it.

Q. Did you bend it like that? A. Yes.

Q. In cold? (587) A. Well, it was already formed.

Q. I mean this is cold. A. While it was cold we did bend it.

Q. And it came out in laminations, that is, layers? A. Layers, fibers.

Q. Well, it's important that we don't mix words around here. Do you know how it came out? We are interested in finding out. A. Yes, it would come out in a series of laminations. If you broke it over far enough it would come out like fibers, or like strings. It all depends how it laminated.

John Novelo—For Defendant—Cross.

Q. It all depends how it laminated. A. Yes.

Q. They didn't do that, I suppose, in the use of the thing? A. No. We tried to get virgin material and we couldn't get it.

Q. You would rather have used virgin material? A. Yes.

Q. You only used this because you couldn't get the other, obviously. A. Couldn't get any others.

Q. When you re-ran it a number of times why did it work eventually whereas it didn't work before?

Mr. Churchill: Objection.

The Court: If you know. If you don't know, just (588) say you don't know.

A. No, I don't know why.

Q. All you know is if you ran it seven times you could make a salable product, but you couldn't do it unless you ran it seven times, or about. A. Somewhere around that, yes.

The Court: You mean you would just keep extruding it?

The Witness: Extruding it over, and it would get better and better, we would lose that fiber, until finally we would get a transparent piece, which once we bent it and we found out it didn't shatter too much, or laminate too much, then we would let it go out.

Q. In other words, you picked up what you had extruded, you dumped it back in the hopper, is that what you mean, and ran it through again?

The Court: Kept re-extruding it until they got it settled down.

The Witness: Till we got it settled down.

Q. If the plasticizer was less when you were through—do you use that plasticizer that way, if you know? A. I imagine we do, but it would become hard.

Q. It becomes harder and harder? A. That's right.

Q. And these products were spongy, you say, to start (589) with? A. Sort of spongy.

Q. In the purging that you speak of there, where you run acetate after butyrate, how many feet is involved, do you know, roughly, before you can start using it? A. Well, that depends on your extruder. I have some extruders where I can run 50 pounds and can't clean out the contamination, and I have one extruder can do it in six feet.

Q. What do you do, actually, do you do as the other witnesses say, take a scoop, go in the barrel, and take the acetate granules and dump them in the hopper when you are running acetate after butyrate? A. Well, we would clean out the hopper. Let's say we are running acetate, we would clean out the hopper, and the man would pour in his butyrate and keep going. We would lose about—maybe 15, 16 pounds, 14 pounds. It varies.

Q. Does the acetate push the butyrate out of the machine? A. Yes.

Q. Clear out from all the crevices? A. Yes, in time.

Q. In time. A. Yes.

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(597) Re-direct Examination by Mr. Churchill:

Q. When you extrude, Mr. Novelo, with the die plate in place, the die in place, and you run acetate after butyrate or butyrate after acetate, what is there about the product from the standpoint of its composition as it runs out in the strip, does all of the butyrate come out first and then all the acetate come out later? A. No, it will take a few—certain amount of lengths before (598) it comes out.

Q. Then when it starts to come out, what is it, all acetate or all butyrate, or mixtures of the same? A. It's a mixture of both.

Q. It's a mixture of the two as it comes through? A. Of the two materials.

Q. And how do you tell when the purging is over? A. Well, you can tell it by flexing a rod, by bending it back and forth until the fibrous contents disappear, then you know that your material is clear.

Q. And that is the way you tell that it is clear? A. That's right.

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(601) JOSEPH WILON, called and sworn for the defendant, testified as follows:

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(603) Direct Examination by Mr. Churchill:

Q. Will you please describe how you got into the business of supplying plastic stays? A. Yes. I travel in in the morning from Brooklyn to New York with some friends, in those cooperative taxies. One of them happened to be a manufacturer in ladies' brassieres. We were discussing various things in business and he discussed that that particular year they are going to use stripping to replace the steel in the brassiere industry. And he said to me, "Well, you are in the plastic line, perhaps you can do something in that field for me." I picked it up from there, and that is how I got into it.

(604) Q. What did you do next? A. Well, being that I dealt with Eastman Kodak, I went up to them and asked them who would be the most suited to do this type of material for me. All we do is just stamp them to the various lengths, various sizes. And they gave me a list of names, who would be the ones to do that type of work.

Q. What were those names? A. There were about four. There was Keystone Plastics—

Q. That's the defendant in this suit? A. Yes. There was World Plastex, there was Apex Plastics, there was also Anchor Plastics. There might have been one or two others. I don't recall exactly.

Q. What did you do next? A. Well, next I went down to Keystone Plastics.

Q. Where were they located? A. They were at that time in Brooklyn. Being I live in Brooklyn, they were closest to my home, and on the way home I stopped in.

Q. And who did you see at Keystone Plastics? A. I saw Mr. Gould.

Q. And what did you say to Mr. Gould? A. I asked him if he can make some kind of a stripping for me that can be used in a garment—I didn't specify what kind of wear, just stripping, I think.

(605) Q. And what did Mr. Gould say? A. He said yes, he can do it.

Q. What happened then? A. He was very busy at that time when I came to him and he said within several months he would be able to supply me with samples, which he did. It came about September, October, he supplied me with some samples.

The Court: What year was that?
The Witness: 1949.

Q. Can you fix the date when you first spoke to Mr. Gould? A. I would say in June of 1949 that I went to his place, asked him if he can do in that field anything, and he said yes. But he was very busy at that moment, and to experiment for the various samples sometimes it doesn't pay to get into it, unless you know exactly what to do. Therefore he postponed it till he was through with his orders.

Mr. Greene: I am losing this. I am sorry. Just a little bit higher. I just don't get it.

The Witness: I am sorry.

Mr. Greene: Repeat the last question and answer, please.

(Record read.)

The Court: In other words, he had orders on hand which he had to finish before he could turn to your problem.

(606) The Witness: Exactly.

Q. Did Mr. Gould supply you with any stripping material? A. Samples?

Q. Samples. A. Yes.

Q. When? A. Well, I had the first sample order from him—I had to pay for the die—I received the first sample order in November, 1949.

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(609) Q. Was the customer satisfied with this white stripping material? A. No, they weren't satisfied.

Q. What complaint did they make? A. You see, I do not know very much about this type of material, but the complaint was when they put it into the garment, and they stitch across, it breaks. That was the complaint that I received, they cannot use it because at the end of that stripping, if they stitched with a needle across, it broke off, and then after there was a ragged edge? Therefore, they couldn't use it.

Q. So what did you do? A. I went back to Keystone Plastics with the complaint, just the way I received it, asking him to make some kind of a stripping that will take stitching, and will not break off in the stitching.

Q. And whom did you speak with at the time? A. Mr. Gould.

Joseph Wilon—For Defendant—Direct.

(610) Q. And what did you say to Mr. Gould you wanted? A. I couldn't tell him what I wanted, all I said to him, "Give me something that will take stitching and will not break off, because I do not know much about this material."

Q. And what did he say? A. He said he can do it. He showed me a sample of—I don't know what you call it, a rod, or a tube—a very thin material, white, and the way I tested it was by bending it, because they complained to me when they bend it, it breaks, especially in cold weather, has the tendency to break, snap. It didn't break.

Q. So Mr. Gould showed you a rod which he asked you to test? A. Right. I bent it several times. It didn't break.

Q. And what did you say to him? A. I said to him if he can make it into the same form that we have been using the other stripping, it may serve the purpose for the customer.

Q. I show you a piece of rod and ask if you recognize this as the type of rod which Mr. Gould showed you? A. Something similar to it, something very much similar to that.

Q. How did you test it? A. By bending it up and back, this way. (Demonstrating.) (611) A. It didn't break on the first bend. It showed that there was some strength in it, that it will stand up to stitching.

Q. It was this type of rod he showed you? A. Yes, something similar to it.

Q. Where did he get the rod from? A. From one of his desks, a sample that he pulled off.

Q. From his desk, did you say? A. From his desk, yes.

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(645) The Court: In other words, you didn't know until your own customers told you that when

they stitched on that material that you furnished them it broke?

The Witness: That's right, exactly.

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(655) Re-direct Examination by Mr. Churchill:

Q. Mr. Wilon, did you ever receive a quotation from Anchor Plastics Company for furnishing you with stripping material? (656) A. I did.

Q. I show you the quotation dated October 28, 1949, and ask you if you identify that quotation. A. That is the one I received by mail.

Q. And what is the product which is there quoted on? A. Extruded cellulose acetate, hard—050 thick, point two hundred wide, one dollar fifteen per pound on 500 pound lots.

Q. Was that the stripping that they quoted you on at the time? A. Yes, that is the stripping.

Q. And that was what they were prepared to sell you at the time? A. Yes.

The Court: The trade name of the stripping doesn't appear there at all, does it?

Mr. Churchill: Further than that, your Honor, it is extruded cellulose acetate, hard.

Mr. Greene: May I see it?

(Document handed to counsel.)

Q. Who is the salesman whose name appears on this quotation, Mr. Wilon? A. It says Richard A. Fisch.

(657) Q. No, the salesman. A. It doesn't say here.

Q. (Indicating). A. Peter H. Seckel.

The Court: He is the patentee.

Mr. Churchill: He is the patentee. And in 1949, October 29, he was selling hard cellulose acetate and not this patented product.

I ask that the quotation be received in evidence.

The Court: It may be marked.

The Clerk: Marked Exhibit D-40.

(Received and marked Exhibit D-40.)

* * *

(658) WILLIAM GOULD, called as a witness in his own behalf, being duly sworn, testified as follows:

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(659) Direct Examination by Mr. Churchill:

Q. Prior to going into the Keystone Plastics business where were you employed? A. I was employed by R. D. Warner and before that with Whiteford.

The Court: Whiteford?

The Witness: Whiteford Plastics, on 66th Street, New York.

Q. How long were you employed by R. D. Warner and Whiteford Plastics? A. I was employed by Whiteford for about three years and R. D. Warner for about ten or twelve months, a little less than a year.

Q. While you were employed at Whiteford Plastics what was your work? A. I was in charge of production.

Q. Producing what? A. Acetate butyrate, rods, tubes and shapes.

Q. Can you state by years, the names and numbers of years you were employed by Whiteford? A. From '43 to '45.

Q. What type of materials did you use at Whiteford (660) extruding? A. Acetate, butyrate, and some vinyl.

Q. What were some of the uses of the products which were produced? A. We made handbag rod, bead rod, and tubing for lamps.

Q. After you left Whiteford where did you go? A. I went with R. D. Warner.

Q. What type of work did you do at R. D. Warner? A. They hired me to set up the same type of work there.

Q. What material did you use at R. D. Warner? A. Same materials.

Q. Acetate? A. Acetate and butyrate, mainly.

Q. What type of products were produced at R. D. Warner? A. Same product.

Q. Rods? A. Rods, tubes, shapes.

Q. When you went into business under the name Keystone Plastics, Inc., where did you first have your place of business? A. 57th Street and Third Avenue, Brooklyn.

Q. When was that? A. '45.

Q. 1945? A. Yes.

(661) Q. Where is your business now located? A. Morris Avenue, Union.

Q. When did you move?

The Court: In New Jersey, here?
The Witness: Yes, sir.

Q. And when did you move from Brooklyn? A. May I get my dates out? I am sort of hazy at dates.

The Court: If you need it you may use it.
The Witness: I do need it.

A. We moved from Newark—rather, from Brooklyn to Newark the latter part of 1949 and we started our operation in Newark in January, 1950.

Q. Then you went from Newark to— A. Newark to Union.

Q. When? A. July of '52.

Q. Why did you move to Union? A. Our plant was damaged by an explosion next door to us; our plant was located on Johnson Street and they had a distillery next door, Dugan's Distillery, the third floor exploded and fell right through my roof and damaged the plant completely, and we were forced to move at that time.

Q. At Whiteford's or R. D. Warner's did you ever have occasion to switch material during extruding? A. Yes.

(662) Q. How did you accomplish purging? A. We followed one material up with another.

Q. Did you do that with the die on or off? A. Yes, with the die on.

Q. Did you ever observe the material which came out of the purged product in that fashion? A. I have.

Q. Did you ever follow up acetate with butyrate or butyrate with acetate? A. I have, both ways.

Q. Did you observe the material product produced? A. I have.

Q. And what did you notice about that material produced? A. It wouldn't be clear, it would be stringy and fibrous, and it was undesirable for the product we wanted.

Q. Was it called contaminated? A. We called it contamination.

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(663) Q. Did you ever contaminate acetate with butyrate or butyrate with acetate accidentally? A. We have.

Q. How is that come about? A. It could come about in a great number of ways. It could take place in the oven, where we have circulating air (664) and the dust of one is picked up and placed in the other; it could happen in the grinder when it is not thoroughly cleaned; it could happen when a man was supposed to be mixing regrind with virgin in order to utilize the regrind would take material from the wrong drum; and it could hang up in the hopper, if it

is not thoroughly cleaned before we switch off to another material. There are a great number of ways it could happen.

Q. How do you detect where one product has been contaminated with the other? A. The extruded material would show the contamination by forming stringy lines, we would lose the gloss, in some instances we would see a scaly effect, spots, and in general a product that has no value for the job we are doing.

* * *

(665) Q. Do you remember a meeting with Mr. Wilon? A. I do.

Q. Will you describe your recollection of that meeting now, please? A. Mr. Wilon came in to us and told us he wanted a strip of material as a stiffener. Well, I showed him—I usually have quite a bit of stuff kicking around, I showed him a (666) batch of material and asked him, "What would you like? What is it for?" He wouldn't tell me what it was for, he said he wanted something that would stiffen a garment.

I said, "Well, acetate is a pretty good bet." He asked me when I could run samples. I happened to be busy at the time and I told him I couldn't get to it for a little while but if he would give me an order for a sample and a die—I believe I charged him for the die, I didn't have the die he wanted and I had to make up a die. He said he would do that. I went to work and made the die and when we had a chance we did run an acetate strip for him. He required a few changes and we went along with him on the changes until we produced a product that he felt was right for him.

Q. What was the nature of the strip which you produced for him? A. Acetate strip with certain dimensions.

Q. When was the first meeting with Mr. Wilon? A. It was in the summer of '49.

Q. And when did you first supply him with an acetate strip? A. In the fall.

Q. 1949? A. '49.

Q. And the strips you supplied to him in the fall of '49 were acetate strips? (667) A. Acetate strips.

Q. Did you recognize Exhibit D-28 as your invoice? A. Yes.

Q. And what was supplied against that invoice? A. Sample run, acetate white strip.

Q. Do you recognize Exhibit D-29 as your invoice? A. December 29, white acetate ribbon in coils of approximately 12 pound lengths, point 216 plus ten minus zero, point 50 plus five minus zero.

Q. Was this a cellulose stripping? A. This was the strip he wanted.

Q. And that was under what date? A. December 29.

Q. So that up to December 29, 1949 you had supplied Mr. Wilon with a cellulose acetate strip, is that correct? A. That is correct.

Q. When did you next hear from Mr. Wilon, and what took place? A. It was in the winter, and we were expanding our facilities. We moved from Brooklyn to Newark. At that time I had two machines in Brooklyn and two machines in Newark and we were neither here nor there. I asked him to give me a little time and I would get something going for him, and right in the midst of all that activity he said he must have something that will do the job.

(668) "Well," I said, "look, there is some stuff; look it over, and see what you want." We always keep a few pieces of interesting things that develop in our work, such as ripple effects or contaminations of various kinds. I said, "See what you can dig up there."

He said, "The main thing I have to have is something that won't break when I flex."

I said, "If I haven't got it there I can't help you."

"Well," he said, "this looks pretty good; can you make this into a strip?"

I said, "Yes."

He said, "Do I need a new die?"

I said, "No, you already have your die."

So the last thing I did before we moved over to Newark was run a sample of this material that he picked out; I put some acetate and butyrate together and threw it in a machine and ran it out and said, "Here, have your customer try this." And then we immediately went to work and got our machine set up in Newark—we had other work besides that—I didn't pay much attention to it, but he came back very excited, he said, "Say, this is swell, it looks good to me. It looks as though we are going to do a lot of business." And I said, "Fine." And that was the beginning of the job.

Q. Well, did he explain to you what was wrong with the (669) stripping that had been supplied to him? A. He said it breaks. My first reaction to it was, "Look, perhaps you better store it in a warm room." He said, "When it is cold it breaks."

I said, "Store it in a warm room." I couldn't be bothered with it, to tell you the truth, I couldn't be bothered at the time with him. I was running back and forth like mad there.

So he said, "Well, we did dry it warm but it didn't work." And that is when I told him see if he can't pick something else out there.

Q. And did he pick out something else? A. He picked out a contaminated bead rod.

Q. Do you recognize these beads which have been marked for identification Exhibit D-30? A. I do.

Q. Where was that strip of bead rod before it was produced here at the trial? A. I found it in my house.

Q. Why had you saved it? A. Well, I was making, I was making up a roll of material, like that shade over there (indicating) out of this, just for my own use, and it happened to be I pulled a slip out of it, and this it it.

Q. Is that piece contaminated? (670) A. This is a contamination.

Q. What two materials were used? A. This is acetate and butyrate.

Q. Is that the type of piece which you showed to Mr. Wilon? A. It was similar to this. It may have been a larger rod at that time. This is the same size as a one and a half millimeter bead rod.

The Court: Is that B rod?

The Witness: Bead.

The Court: Oh, bead.

The Witness: They take this rod, it has a fine bore in here, and when they grind balls out of it, that is the base of a necklace. We used to run quite a bit of it.

Q. When Mr. Wilon said to you that this would be all right, did you produce anything thereafter? A. Yes, we set up a machine in Newark and started to run for Mr. Wilon.

Q. What did you do in running the stripping material? A. I mixed acetate and butyrate.

Q. In what proportions? A. About 12 per cent.

Q. And then you did what? You mixed the two and did what? A. Threw them in a hopper and extruded it.

(671) Q. Through the conventional extruding apparatus? A. That's right, same die.

Q. And it came off onto what? A. We coiled it onto a reel. We have a reel at the other end of the conveyor and it went right from the conveyor on the reel. We handle all our strips of small tubing the same way.

William Gould—Defendant—Redirect.

Q. What steps did you follow in producing this contaminated strip which you don't follow in producing plain acetate strip? A. I deliberately mixed acetate and butyrate.

Q. Aside from that, are all the steps the same or different? A. Same.

Q. Have you continued to supply this type of strip ever since? A. I have.

Q. To whom? A. Mr. Wilon.

Q. Did you ever sell this type of strip, yourself? A. I did.

Q. Under what name? A. Stayrite Suppiy.

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(723) Re-direct Examination by Mr. Churchill:

Q. When you started Keystone Plastics, Mr. Gould, how many extruders did you have? A. One.

Q. How many grinders did you have? A. One.

Q. How many materials did you use? (724) A. Two.

Q. What were they? A. Acetate and butyrate.

Q. So you used the same grinder and the same extruder for both acetate and butyrate? A. That's right.

Q. How many ovens did you have for drying the material? A. One.

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(726) Q. So that the first few months you had one extruder? A. That's right.

Q. And you had one grinder? A. Yes.

Q. And one oven, and used two materials? A. That's right.

Q. And did you get any contamination in that period? A. Yes.

Q. And have you had contamination since? A. I have.

Q. I show you again Defendant's Exhibit D-44 and I ask

if the peeling which takes place on this strip, which you produced, is properly described as a lamination? A. Yes.

Q. Is that the same lamination which is warned against by the warnings issued by Tennessee Eastman? A. Yes.

Q. I show you the strip which you produced, and which has been marked as Defendant's Exhibit D-42, which you also show as laminated and can be peeled off, and is that the same lamination which is warned against by Tennessee Eastman (727) notices? A. Yes.

Q. That is properly described as laminated, is that correct? A. Yes.

Q. When you produce your product which is charged to be infringed here, do you make any special attempt or effort to be sure that you get very thin hairlike fibers? A. No.

* * *

Richard A. Fisch, called and sworn for the defendant, testified as follows:

The Clerk: May we have your name and address, please.

The Witness: Richard A. Fisch, 70 Rock Rose Place, Forest Hills, Long Island, New York.

(728) Direct Examination by Mr. Churchill:

Q. Are you the plaintiff in this suit, Mr. Fisch? A. Yes.

Q. When did you enter the plastics business? A. In 1941.

Q. What did you do prior to 1941, when you entered the plastics business? A. In this country or in the other country?

Q. Any place, what was your prior business experience? A. My prior business experience was, I was part owner of a cigar factory in Germany which my father founded, and I was part partner with my brother.

Q. Did you have any connection whatever with the plastics business before entering the plastics business in 1941? A. I studied up on plastics before I entered the business.

Q. You had not been in the business before 1941? A. I had not been in the business, but I studied it.

Q. You had not worked in the plastics business before 1941? A. No, I did not.

Q. When you entered the business in 1941 did you operate an extruder? A. Before I went into it?

Q. In 1941, when you went into the business, did you (729) operate an extruder? A. Yes, when I founded the place I started out myself.

Q. How many extruders did you have? A. At the time, one.

Q. How many ovens did you have? A. One.

Q. How many grinders did you have? A. One.

Q. How long did you operate with only one grinder, one oven and one extruder? A. I consecutively moved to Canal Street, and that was in—let me get my bearing now—it was in 1945. I continued with one extruder and then started out with buying more.

Q. So until 1945, from 1941, you operated with one extruder, one oven and one grinder, is that correct? A. That is about correct.

Q. And what materials did you extrude during those four years? A. Lucite, methacrylate, cellulose acetate, cellulose acetate butyrate, ethyl cellulose. I think that is about all I can recollect right now.

Q. Did you ever experience a contamination problem during those four years? A. Well, when you have one grinder and one machine and the operation is small, you be very careful not to mix materials (730) together. Now, we used to get—with one machine you get one job, you get another job, you don't have like the day when you have

more machines you have many jobs in the house. So besides capital is scarce, and you be more than careful not to mix the materials, because it means you have to throw them away, in one case; in another case, when you mix materials together, the raw materials, the powder—in powder form, and it is a considerable amount of material, it is very easy to give it to a scrap dealer and have him float it out. The materials have different specific gravities and they can be separated again. You pay for that service, if my recollection is right, at that time, six to ten to 15 cents, depending on the contamination.

The Court: Will you please hold it a minute. Will you please repeat the question. I don't know whether Mr. Fisch heard it. It is a long answer to what I thought was a very simple question.

(Read by the reporter.)

The Court: Yes or no first.

A. I don't think so. I don't recollect it.

The Court: All right. Now we don't have to worry about what happened in Germany or any place else.

Q. During the four years you had no contamination problem? A. No.

(731) Q. Where did you learn about sending this material out to be refined by a scrap dealer? A. This is very simple. Tennessee Eastman tells us. In the beginning we relied very heavily on Tennessee Eastman's knowledge. As a matter of fact, Mr. Searles was the one who instructed me and helped me quite along; also Harry Simpson, who was nothing but a factory supervisor, who was put in by Tennessee to go around to the molders and explain whatever was missing.

R. Leonard Hasche—For Defendant—Direct.

Q. So for four years you did not have any contamination take place in your plant, is that correct? A. Not that I can think of.

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(741) R. LEONARD HASCHE, resumed the stand.

Direct Examination (Continued) by Mr. Churchill:

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(742) Henry Dreyfus, patent 1,688,532, patented October 23, 1928.

This is one of the early patents on the production of yarns, yarns from cellulose acetate, and it provides for the addition of a high boiling plasticizer to the dope from which it is spun.

You will notice on Page 2, Column 2, Line 73, and following—or Line 72 and following:

"As high boiling solvents or plasticisers, diacetine, triacetine and the aforementioned sulphonamides have proved to be of considerable value since they are sufficiently soluble in water or dilute alkali to enable them to be removed by an ordinary washing operation."

This is—as I said, this is an example of one of the early examples of spinning of cellulose acetate in a yarn and one of the early examples of the use of a plasticizer, such as is shown in Mr. Seckel's patent. It happens that triacetine is the most important plasticizer for cellulose acetate.

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(744) Then we have patent to William Alexander Dickie and Monerieff, patent Number 2,089,947, issued August 17, 1937. Also a Celanese patent. And here we have spinning of cellulose acetate into filaments, and this involves twisting to produce crepe effects. And the crepe is set by a wetting treatment.

Here he specifies he can use cellulose acetate, or, as you will note on Page 3, Column 2, Lines 23, and following:

(745) "As examples of such cellulose derivatives may be mentioned cellulose—"

Q. Will you read that whole paragraph? A. "As stated previously the invention is of particular value in connection with the production of crepe fabrics with the aid of highly twisted yarns consisting of cellulose acetate filaments. Crepe threads comprising filaments of other organic derivatives of cellulose may be employed in an analogous manner. As examples of such cellulose derivatives may be mentioned cellulose formate, propinate or butyrate or other cellulose esters of organic acids, or methyl, ethyl or benzyl cellulose or other cellulose ethers."

He also specifies below that he can use other natural filaments, such as cotton, and silk, and so on.

Q. The sentence starting, "The crepe threads" at Line 31. A. "The crepe threads may also be composed of filaments of two or more different kinds whether in respect of material or denier or both."

Q. Now, this patent, issued in 1937, taught that threads can be formed of cellulose acetate and cellulose acetate butyrate, is that correct? A. That's right.

Q. And that such threads can be formed into a crepe by using two dissimilar types? (746) A. Right.

Q. Such as acetate threads and butyrate threads, is that correct? A. Yes. And can be set into a composite mass by crepeing with a wetting agent.

Q. And they would be caused to coalesce, is that correct? A. Yes.

Q. Into a unitary mass? A. Yes.

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(759) Mr. Churchill: Well, I have one other possible witness. I don't want to protract this case

needlessly. (760) Mr. Hutchins was the molder in charge of this Apex Company and he was the one who produced those two strips for Mr. Wilon back in June of 1950. All he can testify to is that Mr. Wilon showed him a sample of what had been produced by Mr. Gould and he said, "I can duplicate this," and he did. I don't know whether Mr. Greene would be willing to stipulate to that effect or not.

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(769) Mr. Greene: By the way, we will stipulate, as previously requested, that the testimony of Mr. Hutchins, as (770) set out in Mr. Churchill's request above—it is in the record.

The Court: In other words, if Hutchins appeared he would say what Mr. Churchill represented that he would say, and only as far as that.

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(833) Re-cross Examination:

The Court: Do both sides rest?

Mr. Greene: Wait. My only thought here is that I would like to have Mr. Durr say a few words on a couple of these patents involved. I am not sure that we are altogether clear on the Carothers patent. I think if we did it now—I wouldn't take much time—we might just finish it up in a few minutes, if you would like to do it that way.

The Court: Well, you are here. You better do it (834) now. You won't get another opportunity.

Mr. Churchill: Is Mr. Durr the only other witness you have?

Mr. Greene: That is all.

Mr. Churchill: Mr. Durr is Mr. Greene's partner.

Mr. Greene: I was going to introduce him.

The Court: He is offered as a witness for the plaintiff?

Mr. Greene: Yes.

FRANK L. DURR, called and sworn for the plaintiff, testified as follows:

The Clerk: May we have your full name, please, sir?

The Witness: Frank L. Durr.

The Clerk: And your address for the record?

The Witness: 320 West 42nd Street, New York.

Direct Examination by Mr. Greene:

Q. Are you a partner of the firm of Greene, Pineles, Callman & Durr? A. Yes, I am.

Q. What did you do before you came with this firm? A. I was an Examiner in the Patent Office.

Q. In Washington? A. Yes.

Q. What was the type of application for patents that you handled? (835) A. I handled patent applications in the class of plastics, Division 15, and the last 12 years or so I was in the Patent Office I handled applications relating to the production of synthetic filaments.

Q. Was your art the processes for the production of the filaments or thread products that are the subject matter of the references in the action here? A. Several of the references that I have looked over went over my desk.

Mr. Churchill: If your Honor please, I am afraid I have to object to this witness being called as an

expert, or anything resembling an expert. He is a partner of the plaintiff's own counsel, and he is the man who has been mentioned heretofore as the one who prosecuted this patent in suit on behalf of Mr. Seckel, and I think that any testimony he could give in this case—

The Court: Would have to be very biased, you mean?

Mr. Churchill: Is apt to be very biased.

The Court: You mean he can't be objective about it.

Mr. Churchill: I doubt it very much, your Honor. He has appeared as counsel here in this case at various calendar calls.

The Court: That of itself wouldn't mean anything, appearing at calendar calls. It's a matter of convenience. (836) When Mr. Greene couldn't come, he came.

Off the record.

(Discussion off the record.)

By Mr. Greene:

Q. The principal references discussed here, Mr. Durr, are, first, Carothers—will you state briefly what Carothers teaches the art? A. This patent is directed to a process of making a new polymer, a superpolymer. It is one of a series of the nylon type patents that were filed about the same time by Carothers, and the patent itself is directed only to the process of making the linear polyacetal. It is not directed to any—has no claims of any kind in it to a fiber or to a process of making a fiber. There is a patented process of making a fiber and I am pretty sure its number is just one less than this, 2,071,251. I haven't checked that. But the part on page 7, first column, where he says that

there may be a number of—may be mixed with a number of different compounds—is in there to establish a use for the polymer.

Claim 9 in this patent is typical of the compound, and that is a very simple claim, only a linear polyformal, which is a chemical compound, it is not a fiber.

The process claims relate to methods in carrying on the condensation whereby he gets this polyformal.

Q. Is there a disclosure there of mixing two incom-
(837) patible materials and extruding them through a single orifice to form a material that can be separated into fibers? A. There is no specific disclosure of this type in the patent. There is a disclosure—he does, on this page 7, first column, name a number of different thermoplastic materials, you might say, which he says can be mixed with the polymer he is making here. Now, it may happen that some of the things included with that definition are incompatibles, as a matter of fact with the polyvinyl—or the polyformal, but there is no disclosure of any mixing of incompatible materials.

The Court: Well, I think that is substantially what Dr. Hasche said, too.

Mr. Greene: I think that's correct.

The Court: Yes.

Q. Assuming the product formed there was made into a filament or monofil, would it be a solid body, a crystalline body, or a body of a different type? A. It would be one solid body.

Q. Not capable of subdivision, or capable of it? A. Well, I wouldn't want to say it wouldn't be capable of subdivision, but not easily.

Q. Is there any disclosure about that subject matter? A. No.

Q. Will you describe briefly Goessling? A. Goessling discloses mixing two incompatible materials (838) and then injection molding the two materials. That is about all you can say for it. The effect desired here is a decorative effect, and it's a pearlescent effect, similar to that exhibit.

Q. P-36. A. Obviously, if the material in the finished product separated into fibers it would be entirely useless for the Goessling process.

Q. Are there any other patents among the references cited and discussed by the defendant here which show a fibrous structure made from one integral extrusion? A. No, not without some subsequent step, such as extensive stretching.

Q. You mean like Bailey? A. Yes.

The Court: Like Bailey?

Mr. Greene: Bailey, that article where he put 700 degrees on it and then went like that.

The Court: Yes.

Mr. Greene: I am trying to short-cut this, instead of going through individual patents.

Q. Is there any disclosure in which cellulose acetate and cellulose acetate butyrate are mixed and extruded for any purpose? A. Not in these patents.

(839) The Court: Well, Dr. Hasche said that, too. So far I am not getting much help. He is just corroborating what Dr. Hasche said.

Mr. Greene: I just wanted to be sure it was clear.

The Court: Well, it is clear to me now. Maybe the corroboration makes it clearer, I don't know.

Mr. Greene: That's all.

Frank L. Durr—For Plaintiff—Cross.

Cross Examination by Mr. Churchill:

Q. Are you the same Frank L. Durr who prosecuted the patent, the application for the patent here in suit? A. At least I had a part in that prosecution.

Q. Are you the same Frank L. Durr who filed an affidavit in the Patent Office under date of March 8, 1950 in order to obtain this patent? A. You mean the affidavit to have the application made special?

Q. Yes. A. It was an affidavit to have the Commissioner take the application up special.

Q. You are the same Frank Durr who made that affidavit? A. I am the same one.

Q. The same one who made that affidavit to have this patent issued? A. Yes.

The Court: Does that mean the Commissioner personally takes this up?

(840) The Witness: No. It takes a long time to get a patent through ordinarily.

The Court: So I understand.

The Witness: But if an application—or if an invention is being infringed, you can have that speeded up if you file an affidavit. This particular one stated—

The Court: You mean citing good cause why it should be?

The Witness: Yes. And also citing reasons why you think it should be allowed.

The Court: I see.

By Mr. Churchill:

Q. How long did you say you were a Patent Office Examiner? A. I was actually—I don't think I said, in

the first place, but I actually was in there from about 1928, around the middle of 1928, till 1945.

The Court: Seventeen years.

Q. And you say the Goessling patent was one you had personally handled? A. No.

Q. You personally did not handle that one? A. No.

Q. Did you personally handle the Carothers patent? A. Not that Carothers patent. I handled one of them.

Q. Not the one here involved? (841) A. No, that's 260—in class 260.

Q. So that neither one, the Goessling patent nor the Carothers patent, about which you testified were patents which came to your attention while you were in the Patent Office— A. They came to my attention.

Q. —and you handled the application for them? A. Yes. But they did come to my attention.

Q. But only as copies of issued patents? A. And as references.

Q. As references to be applied to other patents. A. Yes.

Q. In applying a reference to an application for a patent, in all your seventeen years in the Patent Office as an Examiner, did you ever reject an application, or cite as a reference a claim of a patent? A. Yes.

Q. And how did that action—how did you word such an action? A. Well, there are certain instances when you can only cite a claim of a patent as a reference. When an application is owned by an assignee of the patent and the two are co-pending at one time, under those circumstances you can only use the claim.

Q. That's only because there are two applications in (842) the same name claiming the same invention? A. Yes, that's the only time—

Q. I don't mean in that, I mean as anticipation, or prior art, as a reason why a particular applicant should not get a patent in view of already issued patents, did you ever cite against an application a claim of a patent? A. No, I never specified a claim. When I cited a patent, I cited the whole patent, which includes the claims.

Q. And you referred to the disclosure in the specification? A. I referred to the disclosure, or the claims, if they applied.

Q. But from your experience do you consider what is disclosed in the specification proper prior art even though the claims do not cover it? A. Yes.

Q. Well, now, in the Carothers patent you say the word "incompatible" is not used, is that correct? A. No. That's right.

Q. As Patent Office Examiner, having before you the Carothers patent, wherein he suggests that nylon may be admixed with cellulose acetate, would you know whether those two were compatible or incompatible? A. What was—

Q. Nylon and cellulose acetate. (843) A. No, I wouldn't know.

Q. You wouldn't know, as a Patent Office Examiner? A. No.

Q. So that as a man skilled in the art, in the Patent Office, you wouldn't know that when it was taught in the Carothers patent that nylon and cellulose acetate could be admixed that that patent was teaching that you could admix two incompatible polymers. A. No.

Mr. Churchill: Your Honor, I suggest that this witness has established his lack of competency as a man skilled in the art, if he can't differentiate between polymers which are known to have certain characteristics, and that he wouldn't know that

nylon and cellulose acetate were, in fact, incompatible, without having it written right into the specification that these are incompatible.

The Court: Well, Mr. Durr doesn't claim to be skilled in the art.

Mr. Churchill: Well, he was put on the stand, as I understood it, as a man who was skilled in the art to interpret what these patents taught.

Mr. Greene: Not so. Do you want to move to strike the testimony? I think that would be the way to do it.

The Court: Do you want it stricken out?

Mr. Churchill: No, your Honor. I think it has no (844) probative value.

The Court: Well, it is not very helpful. It just corroborated some of the things that Dr. Hasche said.

All right, Mr. Durr.

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